

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: PORTFOLIO

Report Number: P246119

Luminaire Tested: **LSR8B50D010 EC8B50835 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246119
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B50D010 EC8B50835 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4939.0 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

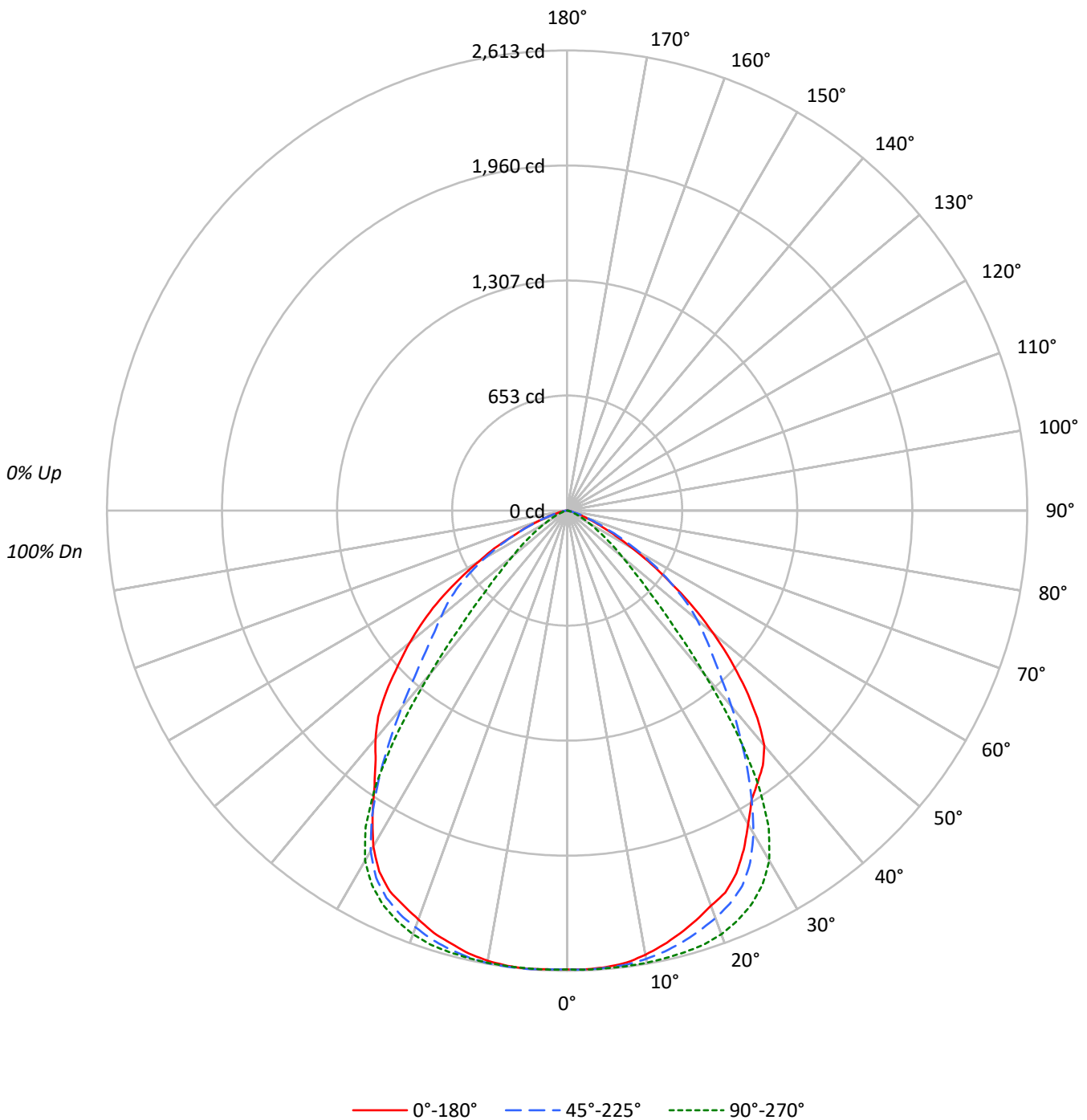
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P246119

CATALOG NUMBER: LSR8B50D010 EC8B50835 8LBDW0B

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90				90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62				62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55				55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50				50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45				45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41				41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	80356	80356	80356
5°	80533	80750	80837
10°	80193	81640	81289
15°	79306	82833	81272
20°	78353	83997	81060
25°	77337	84094	81144
30°	73165	81732	78395
35°	70982	71031	71769
40°	70102	48872	68130
45°	62461	29340	63316
50°	51940	19525	55965
55°	38956	13462	47450
60°	26396	8973	35801
65°	15921	5815	24596
70°	8827	3156	15129
75°	4003	1334	7828
80°	3481	1492	5469
85°	3963	1981	5449



TEST NUMBER: P246119

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.7	5.0
10°-20°	722.3	14.6
20°-30°	1096.2	22.2
30°-40°	1151.4	23.3
40°-50°	863.2	17.5
50°-60°	553.9	11.2
60°-70°	236.9	4.8
70°-80°	56.0	1.1
80°-90°	10.4	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2067.2	41.9
0°-40°	3218.6	65.2
0°-60°	4635.7	93.9
0°-90°	4939.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4939.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2606	2606	2606	2606	2606	
5°	2602	2606	2609	2613	2612	247
15°	2484	2536	2595	2578	2546	701
25°	2273	2353	2472	2427	2385	1038
35°	1886	1781	1887	1865	1906	1183
45°	1432	1171	673	1137	1452	1097
55°	725	725	250	755	883	657
65°	218	257	80	332	337	233
75°	34	39	11	67	66	49
85°	11	7	6	11	15	12
90°	0	0	0	0	0	



TEST NUMBER: P246119

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9
2.5°	2607.3	2610.1	2608.7	2608.7	2607.3	2608.7	2608.7	2611.5	2611.5	2608.7	2607.3
5°	2601.7	2604.5	2604.5	2601.7	2601.7	2608.7	2604.5	2607.3	2607.3	2605.9	2605.9
7.5°	2589.1	2589.1	2594.7	2590.5	2590.5	2594.7	2593.3	2596.1	2598.9	2600.3	2600.3
10°	2561.1	2564.0	2565.4	2565.4	2566.8	2570.9	2573.7	2579.4	2582.1	2584.9	2586.3
12.5°	2526.2	2530.4	2531.8	2530.4	2534.6	2540.2	2547.2	2554.2	2558.4	2564.0	2568.2
15°	2484.2	2484.2	2487.0	2491.2	2494.0	2502.4	2509.4	2517.8	2529.0	2536.0	2543.0
17.5°	2438.1	2440.9	2445.1	2445.1	2450.7	2464.6	2468.8	2481.4	2494.0	2501.0	2515.0
20°	2387.7	2390.5	2394.7	2397.5	2404.5	2415.7	2424.1	2435.3	2449.3	2461.9	2475.8
22.5°	2348.5	2343.0	2345.7	2348.5	2355.6	2365.3	2375.1	2389.1	2403.1	2415.7	2429.7
25°	2273.0	2274.4	2278.6	2281.4	2289.8	2298.2	2309.4	2326.2	2338.7	2352.7	2368.1
27.5°	2170.9	2172.3	2179.3	2179.3	2186.3	2200.3	2207.3	2221.3	2238.1	2252.0	2270.2
30°	2054.8	2057.6	2057.6	2063.2	2067.4	2074.4	2081.4	2095.4	2103.8	2116.3	2141.5
32.5°	1948.5	1951.3	1949.9	1948.5	1944.3	1942.9	1941.5	1944.3	1947.1	1951.3	1961.1
35°	1885.6	1878.5	1873.0	1863.2	1852.0	1838.0	1825.4	1808.6	1793.2	1780.6	1766.7
37.5°	1825.4	1824.0	1815.6	1801.6	1779.2	1754.1	1724.7	1688.3	1651.9	1612.8	1575.0
40°	1741.5	1737.3	1730.3	1710.7	1685.5	1654.7	1615.6	1570.8	1512.1	1451.9	1390.4
42.5°	1598.8	1600.2	1591.8	1576.4	1552.7	1523.3	1482.7	1433.8	1370.8	1299.4	1219.7
45°	1432.3	1432.3	1429.5	1416.9	1400.2	1376.4	1345.6	1305.1	1243.5	1170.8	1085.4
47.5°	1258.9	1260.3	1256.1	1253.3	1246.3	1230.9	1208.5	1177.8	1134.4	1064.5	979.1
50°	1082.7	1082.7	1089.6	1088.2	1088.2	1082.7	1072.9	1054.7	1016.9	961.0	881.2
52.5°	906.4	909.2	913.4	919.0	926.0	937.2	926.0	917.6	893.8	850.4	781.9
55°	724.6	727.4	734.3	744.1	752.6	763.7	766.5	766.5	753.9	724.6	672.8
57.5°	569.3	565.1	570.7	579.1	590.3	601.5	609.9	619.7	618.3	598.7	556.7
60°	428.0	429.4	433.6	442.0	450.4	460.2	471.4	479.8	484.0	474.2	447.6
62.5°	311.9	311.9	317.5	325.9	330.1	344.1	351.1	355.3	359.5	358.1	341.3
65°	218.2	221.0	223.8	228.0	232.2	240.6	244.8	253.2	256.0	257.4	244.8
67.5°	153.9	149.7	152.5	155.2	159.5	165.1	173.5	173.5	177.6	177.6	169.2
70°	97.9	97.9	99.3	103.5	106.3	107.7	110.5	113.3	117.5	116.1	116.1
72.5°	65.7	64.3	65.7	67.2	68.6	72.7	72.7	74.1	76.9	78.3	72.7
75°	33.6	35.0	37.8	36.4	40.6	37.8	39.2	43.4	42.0	39.2	39.2
77.5°	28.0	28.0	28.0	26.6	29.4	29.4	28.0	30.8	29.4	29.4	28.0
80°	19.6	21.0	19.6	18.2	19.6	18.2	18.2	18.2	18.2	18.2	16.8
82.5°	15.4	12.6	14.0	12.6	14.0	14.0	12.6	11.2	11.2	12.6	11.2
85°	11.2	8.4	9.8	9.8	8.4	8.4	8.4	8.4	8.4	7.0	7.0
87.5°	7.0	4.2	4.2	4.2	5.6	5.6	5.6	4.2	5.6	5.6	2.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P246119

CATALOG NUMBER: LSR8B50D010 EC8B50835 8LBDW0B

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9
2.5°	2610.1	2608.7	2611.5	2610.1	2610.1	2608.7	2610.1	2608.7	2611.5	2605.9	2607.3
5°	2610.1	2607.3	2608.7	2610.1	2611.5	2608.7	2608.7	2608.7	2611.5	2608.7	2610.1
7.5°	2604.5	2603.1	2607.3	2610.1	2608.7	2607.3	2610.1	2608.7	2611.5	2610.1	2612.9
10°	2593.3	2594.7	2597.5	2601.7	2603.1	2604.5	2607.3	2607.3	2611.5	2605.9	2608.7
12.5°	2576.5	2582.1	2589.1	2591.9	2597.5	2597.5	2600.3	2601.7	2604.5	2603.1	2607.3
15°	2555.6	2562.5	2570.9	2578.0	2584.9	2589.1	2593.3	2594.7	2598.9	2594.7	2596.1
17.5°	2530.4	2538.8	2551.4	2559.7	2570.9	2575.1	2580.7	2583.5	2587.7	2584.9	2586.3
20°	2495.4	2505.2	2519.2	2531.8	2538.8	2548.6	2555.6	2559.7	2562.5	2559.7	2561.1
22.5°	2446.5	2460.5	2478.6	2488.4	2502.4	2510.8	2512.2	2522.0	2529.0	2522.0	2524.8
25°	2389.1	2403.1	2417.1	2438.1	2450.7	2460.5	2470.2	2471.6	2478.6	2477.2	2475.8
27.5°	2294.0	2312.2	2335.9	2352.7	2369.5	2384.9	2396.1	2398.9	2405.9	2403.1	2404.5
30°	2163.9	2183.5	2205.9	2232.4	2256.2	2271.6	2285.6	2295.4	2302.4	2298.2	2296.8
32.5°	1979.3	1998.9	2022.6	2049.2	2077.2	2099.5	2116.3	2128.9	2137.3	2134.5	2127.5
35°	1768.1	1773.6	1789.0	1810.0	1833.8	1857.6	1873.0	1886.9	1896.7	1899.5	1899.5
37.5°	1551.2	1533.1	1521.9	1521.9	1535.8	1545.6	1559.6	1568.0	1583.4	1589.0	1593.2
40°	1341.4	1299.4	1260.3	1230.9	1211.4	1209.9	1209.9	1214.1	1228.1	1246.3	1263.1
42.5°	1154.0	1086.8	1026.7	972.1	933.0	910.6	900.8	902.2	913.4	930.2	958.2
45°	1004.3	920.4	844.9	779.1	726.0	691.0	674.2	672.8	681.2	700.8	731.6
47.5°	888.2	798.7	713.4	637.8	580.5	542.7	523.1	517.6	523.1	541.3	577.7
50°	791.7	699.4	611.3	532.9	471.4	432.2	414.0	407.0	414.0	429.4	465.8
52.5°	702.2	607.1	524.5	449.0	383.3	349.7	330.1	325.9	330.1	348.3	377.7
55°	598.7	517.6	436.4	360.9	303.5	270.0	254.6	250.4	254.6	271.4	302.1
57.5°	496.6	426.6	355.3	286.7	237.8	208.4	194.4	188.8	198.6	209.8	246.2
60°	401.4	345.5	285.3	225.2	184.6	158.1	146.9	145.5	148.3	162.3	187.4
62.5°	314.7	268.6	221.0	172.1	138.5	127.3	113.3	111.9	114.7	123.1	142.7
65°	226.6	197.2	160.9	125.9	99.3	83.9	78.3	79.7	82.5	88.1	106.3
67.5°	158.1	137.1	111.9	88.1	68.6	61.5	56.0	54.6	56.0	65.7	75.5
70°	106.3	93.7	75.5	67.2	47.6	37.8	39.2	35.0	40.6	40.6	48.9
72.5°	69.9	61.5	50.3	39.2	33.6	26.6	26.6	25.2	28.0	29.4	36.4
75°	36.4	28.0	28.0	19.6	14.0	7.0	12.6	11.2	9.8	11.2	14.0
77.5°	25.2	21.0	19.6	15.4	14.0	11.2	11.2	11.2	11.2	12.6	14.0
80°	15.4	15.4	11.2	9.8	8.4	7.0	8.4	8.4	8.4	8.4	9.8
82.5°	9.8	8.4	8.4	7.0	7.0	5.6	5.6	5.6	5.6	5.6	8.4
85°	8.4	5.6	5.6	4.2	5.6	9.8	4.2	5.6	5.6	5.6	4.2
87.5°	2.8	4.2	4.2	4.2	2.8	1.4	2.8	4.2	4.2	7.0	5.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P246119

CATALOG NUMBER: LSR8B50D010 EC8B50835 8LBDW0B

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9	2605.9
2.5°	2610.1	2611.5	2611.5	2610.1	2610.1	2607.3	2612.9	2608.7	2610.1	2615.7	2611.5
5°	2612.9	2614.3	2614.3	2612.9	2612.9	2612.9	2614.3	2614.3	2612.9	2611.5	2614.3
7.5°	2618.5	2617.1	2617.1	2614.3	2614.3	2611.5	2614.3	2610.1	2612.9	2610.1	2614.3
10°	2611.5	2612.9	2611.5	2610.1	2610.1	2608.7	2608.7	2604.5	2605.9	2601.7	2604.5
12.5°	2607.3	2605.9	2605.9	2603.1	2600.3	2597.5	2596.1	2591.9	2591.9	2582.1	2586.3
15°	2596.1	2597.5	2593.3	2587.7	2584.9	2578.0	2575.1	2569.5	2564.0	2557.0	2558.4
17.5°	2586.3	2582.1	2576.5	2570.9	2559.7	2554.2	2548.6	2540.2	2537.4	2529.0	2526.2
20°	2557.0	2554.2	2547.2	2537.4	2530.4	2517.8	2512.2	2503.8	2496.8	2488.4	2484.2
22.5°	2519.2	2516.4	2508.0	2498.2	2487.0	2481.4	2475.8	2460.5	2453.4	2445.1	2443.6
25°	2471.6	2467.4	2459.1	2447.9	2442.2	2426.9	2421.3	2410.1	2407.3	2398.9	2397.5
27.5°	2398.9	2393.3	2383.5	2369.5	2359.7	2349.9	2344.4	2335.9	2333.2	2324.7	2323.4
30°	2289.8	2282.8	2263.2	2257.6	2240.8	2231.0	2231.0	2219.8	2221.3	2215.7	2215.7
32.5°	2117.8	2106.6	2091.2	2080.0	2068.8	2063.2	2063.2	2059.0	2061.8	2061.8	2064.6
35°	1889.7	1874.4	1866.0	1859.0	1859.0	1864.6	1881.4	1885.6	1893.9	1900.9	1906.5
37.5°	1597.4	1596.0	1605.8	1614.2	1635.2	1659.0	1688.3	1713.5	1737.3	1754.1	1770.8
40°	1281.3	1316.3	1344.2	1383.4	1415.5	1461.7	1514.9	1558.2	1598.8	1628.2	1659.0
42.5°	1000.1	1044.9	1103.6	1161.0	1218.3	1281.3	1351.2	1411.4	1464.5	1505.1	1537.2
45°	779.1	840.7	912.0	984.7	1058.9	1137.2	1209.9	1271.5	1327.4	1369.4	1401.6
47.5°	628.0	695.2	776.3	856.1	940.0	1022.5	1103.6	1156.8	1202.9	1236.5	1265.9
50°	518.9	590.3	675.6	766.5	850.4	933.0	1002.9	1054.7	1092.5	1121.8	1140.0
52.5°	433.6	509.1	600.1	691.0	774.9	850.4	913.4	952.6	983.3	1004.3	1021.1
55°	358.1	430.8	516.2	601.5	684.0	755.3	807.1	836.5	860.2	872.8	882.6
57.5°	292.4	359.5	437.8	516.2	587.5	646.2	686.8	716.2	727.4	737.2	735.8
60°	229.4	292.4	363.7	430.8	492.4	539.9	569.3	586.1	594.5	598.7	595.9
62.5°	180.4	237.8	292.4	351.1	395.9	436.4	464.4	464.4	468.6	470.0	474.2
65°	134.3	177.6	225.2	268.6	304.9	331.5	346.9	351.1	356.7	355.3	352.5
67.5°	99.3	131.5	166.4	198.6	223.8	240.6	251.8	261.6	260.2	257.4	256.0
70°	68.6	89.5	120.3	139.9	158.1	174.9	177.6	179.0	180.4	181.8	179.0
72.5°	47.6	62.9	79.7	96.5	107.7	114.7	121.7	123.1	123.1	123.1	121.7
75°	23.8	32.2	47.6	54.6	64.3	67.2	72.7	72.7	76.9	71.3	69.9
77.5°	21.0	25.2	33.6	39.2	43.4	47.6	48.9	53.2	51.7	48.9	50.3
80°	12.6	15.4	21.0	23.8	29.4	30.8	32.2	33.6	32.2	33.6	33.6
82.5°	9.8	11.2	14.0	14.0	18.2	18.2	19.6	19.6	21.0	21.0	21.0
85°	5.6	9.8	8.4	16.8	11.2	11.2	14.0	16.8	14.0	14.0	16.8
87.5°	5.6	5.6	4.2	5.6	5.6	5.6	7.0	8.4	8.4	9.8	8.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P246119

CATALOG NUMBER: LSR8B50D010 EC8B50835 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2605.9	2605.9	2605.9	2605.9
2.5°	2610.1	2612.9	2608.7	2607.3
5°	2614.3	2614.3	2611.5	2611.5
7.5°	2614.3	2614.3	2610.1	2607.3
10°	2603.1	2603.1	2598.9	2596.1
12.5°	2582.1	2582.1	2580.7	2576.5
15°	2555.6	2555.6	2550.0	2545.8
17.5°	2519.2	2522.0	2515.0	2515.0
20°	2480.0	2478.6	2473.0	2470.2
22.5°	2439.5	2436.7	2435.3	2426.9
25°	2396.1	2393.3	2389.1	2384.9
27.5°	2322.0	2320.6	2316.4	2310.8
30°	2208.7	2207.3	2201.7	2201.7
32.5°	2061.8	2060.4	2054.8	2056.2
35°	1909.3	1914.9	1912.1	1906.5
37.5°	1782.0	1786.2	1789.0	1786.2
40°	1675.7	1688.3	1689.7	1692.5
42.5°	1562.4	1579.2	1584.8	1587.6
45°	1426.7	1442.1	1454.7	1451.9
47.5°	1288.3	1299.4	1310.6	1302.3
50°	1155.4	1162.4	1166.6	1166.6
52.5°	1029.5	1029.5	1028.1	1029.5
55°	885.4	885.4	879.8	882.6
57.5°	734.3	737.2	732.9	726.0
60°	594.5	587.5	584.7	580.5
62.5°	463.0	463.0	453.2	465.8
65°	346.9	342.7	338.5	337.1
67.5°	251.8	250.4	246.2	244.8
70°	177.6	172.1	170.6	167.8
72.5°	118.9	118.9	116.1	116.1
75°	72.7	65.7	64.3	65.7
77.5°	50.3	48.9	48.9	47.6
80°	33.6	32.2	35.0	30.8
82.5°	21.0	22.4	21.0	22.4
85°	14.0	16.8	15.4	15.4
87.5°	8.4	8.4	8.4	8.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)